



# SUSTAINABILITY INDEX

This Sustainability Index provides a matrix of sustainable measures required or recommended for all improvements within this Specific Plan. Refer to the specific chapter of the Specific Plan for more detailed information.

DESIGN STANDARD	REQUIRED	RECOMMENDED	SECTION
<b><i>Landscaping and Plant Materials</i></b>			
Revegetate disturbed areas with native or naturalized plant materials so that the demarcation between new and existing landscaped areas is obscured.		•	4.4
Utilize native or naturalized plant materials to decrease the reliance on intensive irrigation.		•	4.4
<b><i>Water Supply and Distribution</i></b>			
Where feasible incorporate grey water applications as an additional water supply and provide up to a 30% reduction in potable water use. Water collected and treated from baths, showers, hand basins and washing machines will be used to the extent practical and feasible for irrigation and flushing toilets.		•	6.2
Minimize water intensive landscaping such as turf areas.		•	6.2
Install smart and centrally located irrigation controllers to restrict irrigation to only the times and water application rates that are necessary to maintain landscaping		•	6.2
Minimize water use for planting areas through appropriate plant selection and efficient irrigation systems.		•	B.4.6
Utilize recirculating pumps on hot water systems to generate additional water conservation.		•	6.2



DESIGN STANDARD	REQUIRED	RECOMMENDED	SECTION
Utilize high-efficiency fixtures and fittings to decrease water demand and wastewater flows.		•	6.2
<b><i>Drainage and Flood Control</i></b>			
Vegetated swales, soft armoring, mechanical storm filters, structural interceptors and other Best Management Practices will be utilized at pipe outfalls or other appropriate locations for water quality management, and to convey stormwater runoff to receiving waters while minimizing impacts to open space resources.		•	6.4
<b><i>Stormwater Management</i></b>			
Track compliance with regulatory actions intended to reduce erosion and sediment deliveries, and monitoring channel bed conditions in lower Squaw Creek.		•	6.4a
Control excess runoff volumes and reduce pollutant concentrations, with a focus on oil and grease, trace metals and nutrients in urban runoff, and fine sediment, and sand and salts from road maintenance activities.		•	6.4a
The SWMP also recognizes the increased risk of groundwater contamination from runoff infiltration where an unconfined sole-source drinking water aquifer lies less than 10 feet below the ground surface.		•	6.4a
Incorporate erosion and sediment control BMPs such as applying straw mulch to disturbed areas, the use of fiber rolls and silt fences, sedimentation basins, drain inlet protection, stabilized construction accesses and material management.		•	6.4a
BMP techniques within the Plan Area will, to the extent practical, reduce and/or eliminate the pollutants from the stormwater runoff and prevent the contamination of receiving waters to pre-development levels.		•	6.4a
<b><i>Low Impact Design Strategies</i></b>			
Incorporate LID and stormwater management to minimize changes to the site's pre-development runoff rates and volumes. Measures include separating existing area flows from post-project flows creating opportunities for naturally treated infiltration through the use of LID which can add water to the aquifers, increasing water reuse.		•	6.4b

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<p>LID options include:</p> <ul style="list-style-type: none"> <li>• Disconnected roof drains;</li> <li>• Disconnected and separated pavement;</li> <li>• Bioretention facilities, vegetation, rain gardens and bioswales;</li> <li>• Tree planting;</li> <li>• Grass swales and channels;</li> <li>• Curb cuts and vegetated filter strips;</li> <li>• Impervious surface reduction – permeable pavements and porous pavements;</li> <li>• Creek buffers;</li> <li>• Soil amendments;</li> <li>• Pollution prevention and good housekeeping practices.</li> </ul>		•	6.4b
<b><i>Best Management Practices</i></b>			
<p>BMPs can include:</p> <ul style="list-style-type: none"> <li>• Source control to reduce quantities of runoff;</li> <li>• Directing flows onto grassy areas or open space where feasible;</li> <li>• Additional tree plantings;</li> <li>• Installation of trash screen vaults;</li> <li>• Use of rock-lined ditches below pipe outlets;</li> <li>• Installation of structural BMPs (such as vortex and/or media filtration devices);</li> <li>• Use of disconnected roof drains;</li> <li>• Installation of water quality interceptor devices;</li> <li>• Use of grassy treatment swales/Bio swales.</li> </ul>		•	6.4c
Encourage prompt revegetation of disturbed areas and proper erosion protection per the NPDES permit during construction.		•	6.4c



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If adequate source control and LID measures cannot be implemented to fully account for treatment of the runoff, treatment facilities (BMPs) will be required upstream of discharge to Squaw Creek. Based on the plan, a treatment train consisting of a structural BMP, and a section of grassy swale in the proposed newly constructed outfall swales would be able to provide adequate treatment.		•	6.4c
LID measures in Medium Density Residential may include, but are not limited to: discharge of roof drainage system to planted areas, pervious driveways, porous pavement areas, separated sidewalks and tree plantings that will develop large canopies.		•	6.4c
LID measures in Village Commercial may include, but are not limited to: discharge of roof drainage system to planted areas, pervious driveways, porous pavement areas, turf stone, separated sidewalks, tree plantings which will develop large canopies, trench drains, sheet flowing parking areas to landscaping and vegetated swales, and sand/oil separators.		•	6.4c
<b>Energy Efficiency</b>			
All new and remodeled residential, commercial, institutional and civic construction are encouraged to exceed current Title 24 state energy-efficiency requirements by at least 15 percent.		•	6.6
All new residential buildings and major renovations are encouraged to meet or exceed the guidelines for the California Energy Star Homes Program.		•	6.6
Residential development of more than 6 units is encouraged to participate in the California Energy Commission's New Solar Homes Partnership (NSHP).		•	6.6
New construction of commercial buildings over 10,000 square feet in size is encouraged to incorporate renewable energy generation to provide at least 50 percent of the project's needs.		•	6.6
Incorporating on-site renewable energy production, including installation of photovoltaic cells or other solar options installed in appropriate high sunlight locations is encouraged.		•	6.6
Using building orientation, massing and fenestration design to maximize effective daylighting to reduce building energy requirements, without increasing glare and/or electric lighting loads that offset glare is encouraged.		•	6.6

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<b><i>Energy Efficiency - Mechanical Systems</i></b>			
Designing buildings to reduce the reliance on mechanical intervention for the maintenance of physical comfort levels is required.	•		6.6
A high level of individual occupant control for thermal, ventilation and lighting systems should be incorporated.		•	6.6
Reduce the need for air conditioning through effective ventilation design and the use of trees and architectural devices for shading.		•	6.6
Using CFC-free HVAC & R base building systems is required.	•		6.6
Separating ventilation and plumbing systems for those rooms containing contaminants, such as artist studios, from those in the rest of the building is encouraged.		•	6.6
Increase air quality and energy efficiency by incorporating high performance HVAC and insulation systems.		•	B.5.9
<b><i>Energy Efficiency - Building Envelope</i></b>			
Reduce building envelope leakage.		•	6.6
When possible, locate the HVAC air handler and ductwork inside the building envelope to minimize energy usage associated with duct leakage outside the conditioned space of the home.		•	B.5.9
<b><i>Energy Efficiency - Waste Minimization</i></b>			
Efforts to reduce construction waste are encouraged. All building projects within the Plan Area are encouraged to recycle or reuse a minimum of 50 percent of unused or leftover building materials.		•	6.6
<b><i>Energy Efficiency - Indoor Lighting and Appliances</i></b>			
It is required that all units utilize ENERGY STAR® rated appliances and the most energy-efficient Energy Star rated water heater and air conditioning systems that are feasible, including but not limited to dishwashers, refrigerators, ceiling fans and washing machines.	•		6.6
It is intended that all buildings utilize natural gas, or propane where feasible, for clothes dryers, cooking stoves, heating, central air furnaces, water heaters and/or boilers.	•		6.6
Specifying ENERGY STAR® light fixtures that use less energy and produce less heat than traditional incandescent light fixtures is encouraged.		•	6.6



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<b>Energy Efficiency - Exterior Lighting</b>			
Equip exterior lighting systems with motion sensors and automatic shut-off timers to reduce the hours of lighting when none is necessary.	•		B.4.7
Light fixtures shall utilize energy conserving lamps	•		B.4.7
<b>Energy Efficiency - Water Efficient Appliances</b>			
Utilize water-conserving appliances and plumbing fixtures.	•		6.6
Utilize flow restrictors and/or reduced flow aerators on lavatory, sink and shower fixtures.	•		6.6
Commercial buildings are required to utilize automatic fixture sensors and low-consumption fixtures.	•		6.6
<b>Windows and Doors</b>			
Utilize high performance windows and doors.	•		B.5.5
Orient windows to maximize natural daylight and ventilation opportunities		•	B.5.5
Energy Star windows or similar high performance solutions are required.	•		B.5.5
<b>Building Materials</b>			
Incorporate recycled content materials into the overall building materials selection to the greatest extent feasible.		•	B.5.8
Use building materials that may be recycled at the end of their useful life to the extent possible.			



# THE VILLAGE AT SQUAW VALLEY



## SPECIFIC PLAN

JANUARY 2014  
DRAFT